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ABSTRACT

The manual attempts to bring changes into the way in which manual communication is currently used by deaf adults or in some schools for the deaf, in order to bring manual communication into a closer parallel to the English language so that signs can be used to teach English to the language handicapped deaf person and particularly to adult rehabilitation clients. Commonly used signs are refined or new ones created. A prescriptive dictionary for improved manual communication, with drawings of signs, constitutes the major portion of the document. Two other chapters discuss increasing the compatibility between sign language and English, and techniques for using improved manual communication as a language training tool. (KW)

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IMPROVED TECHNIQUES OF COMMUNICATION:
A TRAINING MANUAL FOR USE WITH
SEVERELY HANDICAPPED DEAF CLIENTS

Harry W. Hoemann, Editor

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Bowling Green State University
Bowling Green, Ohio
1970

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FOREWARD

This Training Manual is a product of the Better Techniques of Communication for Severely Language-Handicapped Deaf People Workshop sponsored by The Catholic University of America, Washington, D.C., and held in Knoxville, Tennessee, August 21 to 25, 1967. Special thanks are due the Planning Committee, who made the workshop possible. They are: Edna Adler, Chairman, David A. Anthony, Margaret Fletcher, Harry W. Hoemann, Max N. Mossel, L. Deno Reed, Bruce M. Ross, C. I. J. M. Stuart, Boyce R. Williams, William R. Woodrick, and James Youniss.

Participants in the Workshop were James Youniss, Coordinator, Edna Adler, Chairman, William Woodrick, Assistant Chairman, Harry W. Hoemann, Recorder and Editor, Edward Carney, Roger Falberg, Silas Hirte, Richard Johnson, Barbara Kannapell, Herbert Larsen, Mark Liberman, Max Mossel, Dorothy Miles, and James L. Orman.

The drawings for the dictionary were prepared by William R. Woodrick, whose efforts and talent are gratefully acknowledged. The critical review of the drawings and recommended signs for this manual required exceptional patience and competence. Barbara Kannapell's contribution to this phase of the project is also gratefully acknowledged. Finally, special tribute is due Edna Adler, whose initial enthusiasm for the project and sustained interest in its goals and in the clients whom it was designed to serve were major factors in the success of the Workshop and in the compilation of this manual.

Although the chapters in this manual are attributed to specific authors, all participants of the Workshop contributed to every phase of the project. The chapter assignments merely reflect areas of primary responsibility as delegated at the Workshop with the names listed alphabetically.

The use of gestures to support instruction in English, of course, does not preclude teaching speech and lipreading. To the extent that rehabilitation clients are able to benefit from such instruction, it should be provided for them as a part of their total rehabilitation. As a matter of fact, the use of spoken English accompanied by the manual gestures described in this manual may prove to be an effective combination for developing language and communication skills in severely handicapped deaf clients.

INTRODUCTION

Roger M. Falberg and Glenn T. Lloyd

In recent years, as a result of increased attention to rehabilitation of deaf adults, a growing number of far-sighted and comprehensive rehabilitation services have been provided for this group of handicapped people. In most or all of these programs, especially those involving prelingually deaf persons, manual communication has customarily been relied upon as a communication tool. With most deaf adults the use of fingerspelling and signs has been found to be effective as a counseling and instructional medium.

In one area, however, while manual communication proved adequate for conversation and counseling, it was not found adequate for instructional purposes. This was particularly true at rehabilitation centers in Lapeer and Lansing, Michigan, where efforts were being made to provide multiply-handicapped deaf people with a basic command of the English language that would enable them to function in the world of work. While the idea of manual communication as an instructional medium was found valid, the system was found lacking in that it did not enable its user to differentiate between many English word meanings. The client was given an introduction to written English, but he was subsequently left without a means for constantly reinforcing in his everyday conversation what he had learned in the classroom. Other media, such as lipreading and fingerspelling, proved to be equally inadequate with this group.

Thus challenged, the deaf professionals working with these people experimented and persisted until they felt they had found an answer. They refined and added to commonly used signs, beginning at the most basic levels. Their objective was to bring manual communication into a closer parallel to the English language so that signs could be used to teach English to the

multiply-handicapped deaf person.

It must be noted, however, that while such refinement and expansion of signs was new in a rehabilitation setting, it was not entirely without precedent. George Dewey Coats and Max Mossel had previously advocated increased "initialization" of signs to broaden the vocabulary of signs and to enable its user to differentiate between "iron," "steel," and "metal," for example. The professionals at Lapeer and Lansing added a new element. They wished to permit differentiation at an even more basic level, and to add signs that would indicate prefixes and suffixes whenever these occurred in English, and to make person and tense in verb use equally visible.

Efforts at Lapeer and Lansing met with some success, and interest in what was being done began to spread as these professionals relocated in other positions in other communities. The new signs, however, were only partly systematized, and it was seen that it would be necessary to gather a group of experienced people for additional contributions.

This led to the workshop in Knoxville, Tenn., with participants from across the country meeting to share their ideas. Because manual communication is a visible means of communicating, it was decided that the innovations generated by the group would be recorded on videotape in order to preserve as faithfully and as exactly as possible the new signs created during the workshop. This training manual is designed to accompany films, videotapes, and other visual materials that may be developed to assist the instructor of the multiply-handicapped deaf person in the use of basic, manual English.

On the pages that follow and in such visual aids as may be produced, the experienced user of manual communication will find many unfamiliar gestures. Some of these may be startling, and initially they may seem clumsy and awkward to use. It may be difficult at first for the teacher

to readjust his signing habits in order to include the new signs. To the discouraged and the skeptical, we can only say that no matter how unwieldy the new signs may seem, their use in the classroom will result in a more visible English.

This training manual is by no means an end product. It is only a first faltering step upward in the development of a communication medium which, up until the present, has been allowed to go its own way without control or guidance.

It must be re-emphasized, however, that it was not the intention of the workshop participants to "revolutionize" the way in which manual communication is currently used by deaf adults or in some schools for deaf children. Any such by-products would be incidental to the major task of the group, which was to give the professional working with the multiply-handicapped deaf person a tool he can use to help that person function with reasonable satisfaction in an English speaking nation.

A PRESCRIPTIVE DICTIONARY FOR IMPROVED MANUAL COMMUNICATION

Edward Carney, Silas Hirte, Barbara Kannapell,

Herbert Larsen and William Woodrick

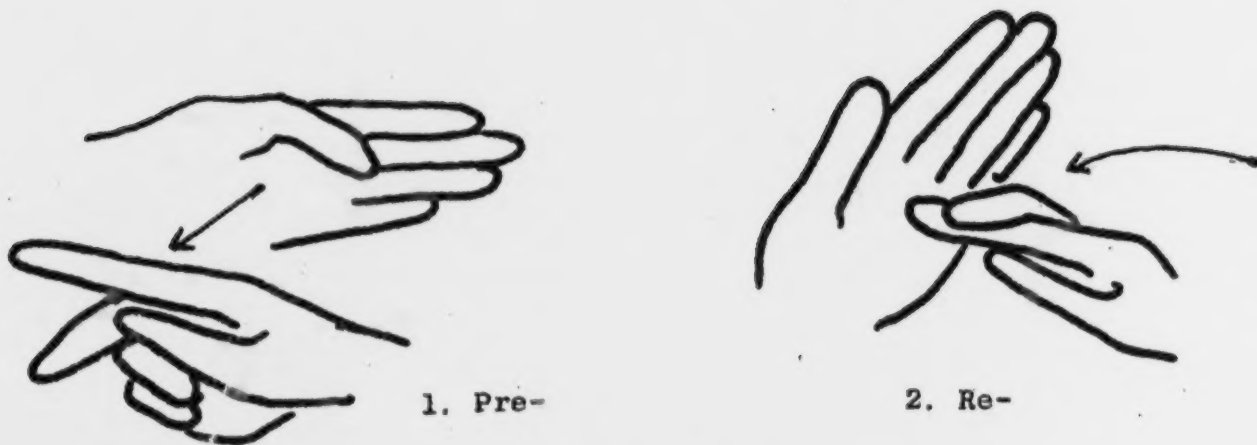
(Although the gesture symbols invented by the Workshop participants are not of equal merit, the editor exercised his prerogative only to a limited extent in deleting signs. Inasmuch as the value of a symbol is best judged by its empirical usefulness rather than by a priori criteria, all but a very few of the sign language innovations proposed at the Workshop were included in this Manual. Contributions judged to be relatively important, however, were placed near the beginning of the dictionary, e.g., prefixes, suffixes, and inflected forms of the auxiliary verbs, and other material, e.g., additional ideographic signs, were placed near the end. Secondly, the signs were grouped on the basis of other criteria than alphabetical order or parts of speech. The index provides the former for those who prefer it; the latter creates problems in classification that are difficult to resolve, e.g., desire is either a noun or a verb, while two gestures are suggested for cash, one for the noun and one for the verb. As an alternative, signs were grouped together that relate to the same subject matter (money matters, printed material, etc.) are derived from the same basic gesture (work), or are initialized versions of existing signs (prepare).

The artist used his own hands as a model for many of the drawings; consequently, some illustrations appear "left-handed" from an observer's perspective. In some instances more radical transformations will be necessary, e.g. the sign for the prefix "un-" immediately following. Rather than include the redundant message that the pictured sign is not exactly what the receiver will see from his perspective, verbal descriptions

were added whenever it appeared to be necessary, but not in every instance. It is taken for granted that the user of this Manual is proficient in the American Sign Language of the deaf. References to existing signs are presumed to be sufficient to describe a basic gesture sequence.

Complete standardization of gesture symbols across the United States in all rehabilitation centers serving language-handicapped deaf clients is unnecessary. This Manual is an approach to a problem, not a fixed symbol system. If readers at different locations decide that a particular sign is not useful for their purposes, it can be passed over. If differences in making a particular gesture symbol on the basis of this Manual's presentation emerge, as long as all the staff members in a given center agree on a gesture, it will probably matter little to the client if the outcome differs from what the Workshop participants intended or from the outcome at a center located elsewhere. Hopefully, these differences will not occur frequently.--Editor)

PREFIXES AND SUFFIXES



1. Pre-: Hold the left hand out, palm facing the body. Form the letter P with the right hand, and draw it away from the palm toward the body.
2. Re-: Hold the left hand out, palm up. For the letter R with the right hand and sign "again."
3. Un-: Form the letter U with both hands facing out and make the sign for "not."

PREFIXES AND SUFFIXES, CONT.



4. -ion -tion



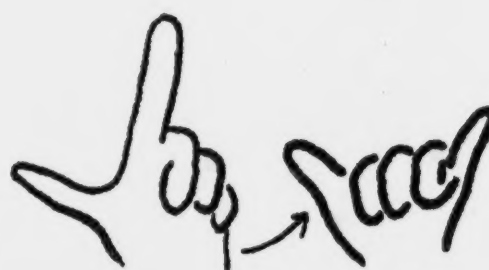
5. -ment



6. -ness



7. -ing



8. -ly

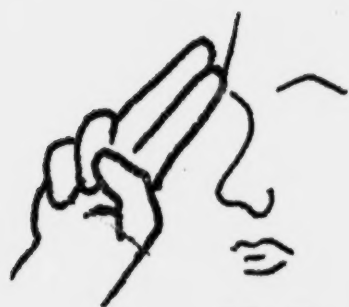
4, 5, 6. Hold the left hand up, palm out. Form the letter I (for -ion and -tion), M (for -ment) or N (for -ness) on the right hand. Make a downward motion of the right hand across the left palm.

7. -ing: Form the letter I with the right hand, palm facing the body. With a twist of the wrist, turn it outward. The drawing shows the initial position from the sender's perspective.

8. The suffixes -n, -en, -d, -ed, -s, -y, and -ly are formed by spelling N, D, S, Y, or LY, respectively, after the sign. The drawing shows -LY from the receiver's perspective and a left-handed signer.

9. The suffixes -er and -est for the comparative and superlative are already in use in the American Sign Language, e.g., good, better best. The appropriate gesture can be used for other regular comparatives in English.

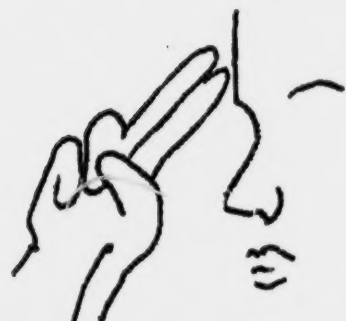
PRONOUNS



10. He



13. She



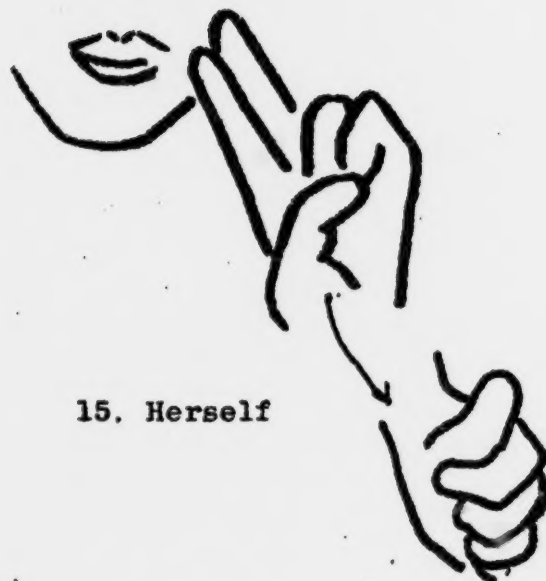
11. Him



14. Her



12. Himself



15. Herself

10. He: H on the right forehead.

11. Him: He + M

12. Himself: He + "self"

13. She: S on the right chin.

14. Her: H on the right chin.

15. Herself: Her + "self"

PRONOUNS CONT.



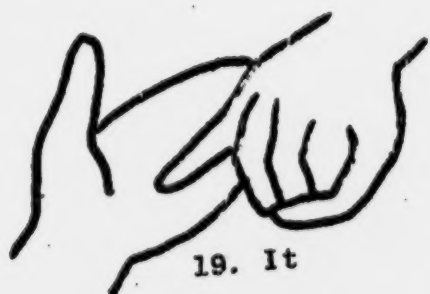
16. His



18. Their



17. They



19. It



20. Itself

16. His: He + your
Her (possessive): Her + your
17. They: T on the right forehead and chin
Them: They + M
18. Their: They + "your"
19. It: Right I hand in the left palm
20. Itself: It + "self"

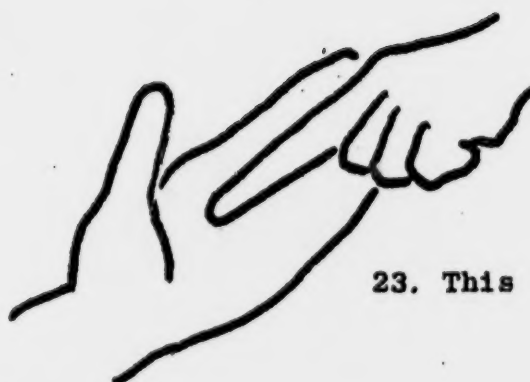
ARTICLE, DEMONSTRATIVES, "THERE"



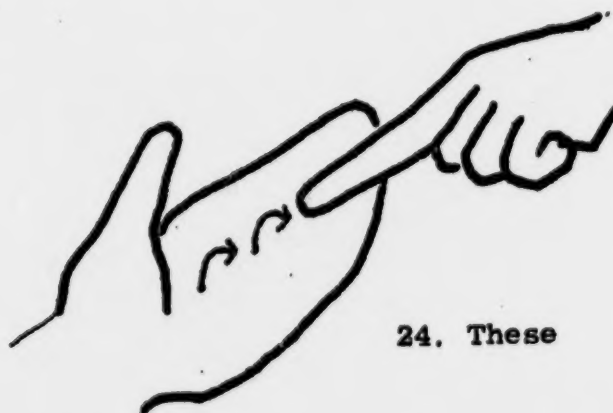
21. The



22. There



23. This



24. These

21. The: T with an outward twist of the wrist.
22. There: T with a slight rotation (not a circle).
23. This: Right index finger in the left palm.
24. These: "This" repeated.

TO BE



25. Is



26. Am



27. Are



28. Be



29. Been



30. Was



31. Were

25, 26, 27, 28. "Truly" with the I, A, R, and B hand, respectively.

29. Been: Be + N

30. Was: "Truly" with the W hand + "Ago" with the R hand

31. Were: Same as "Was" but with the R hands.

32. Will: "Future" with the W hand.

33. Will be: "Will" + be.

34. Would: "Will" + D.

35. Being: "Be" + -ing.



32. Will

TO HAVE



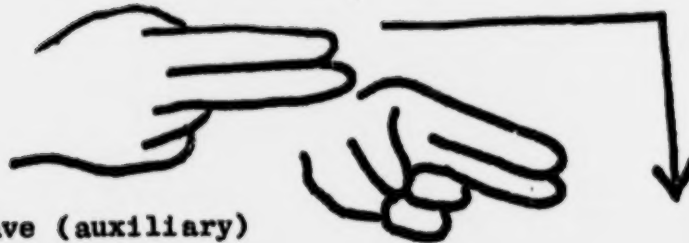
36. Have (possessive)

36. Have (possessive): Hold both hands out, palms facing, and bring them toward the body, touching the chest.

37. Has: Have + S

38. Had: Have + D

39. Having: Have + -ing



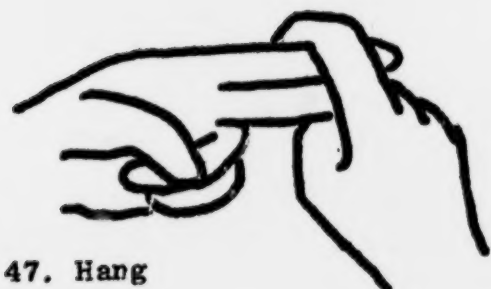
40. Have (auxiliary)

40. Have (auxiliary): Make H hands on both hands and make the sign for "finish," the right hand passing over the left and then drawn sharply downward at the tip of the left H hand.

41, 42, 43. Has, Had, Having: Have: + S, D. or -ing, respectively.

44, 45, 46. Have to, Has to, Had to: Have + "must," Have + S + "must," and Have + D + "must," respectively.

IRREGULAR AND REGULAR VERBS



47. Hang



48. Hung



49. Hanging

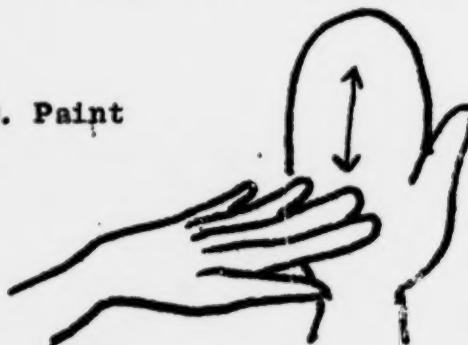
47. Hang: "Depend" with the left H hand.

48. Hung: Hang + G

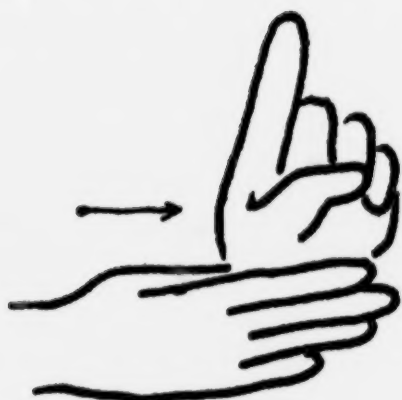
49. Hanging: Hang + -ing (The right hand is pictured in the final position. To make "-ing" hold the right I hand with the palm facing the sender and twist the wrist so that it faces out as pictured.)

50. Paint: Ideographic.
Paints: Paint + S
Painted: Paint + D
Painting: Paint + -ing

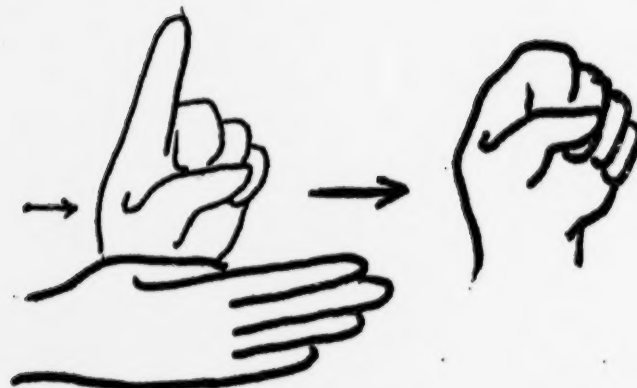
50. Paint



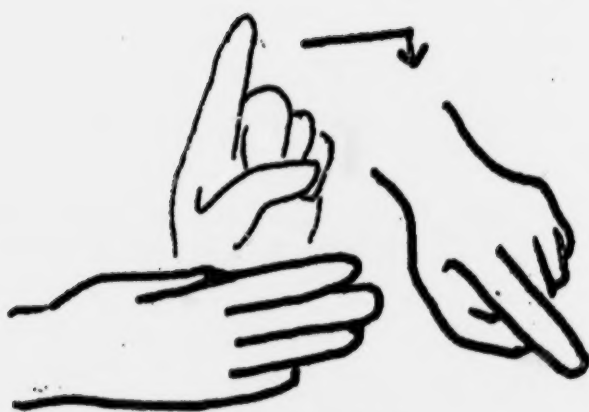
TO DO



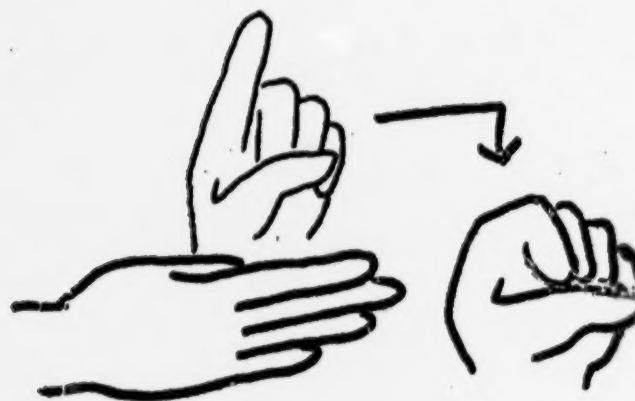
51. Do



52. Does



53. Did



54. Done

51. Do: Hold the left hand out, palm facing the body. Move the right D hand to the right.

52, 53, 54, 55. Does, Did, Done, Doing: Do + S, Do + D as in "finish", Do + E as in "finish," Do + -ing, respectively.

TO GO



56. Go: Move the right index finger away from the body.

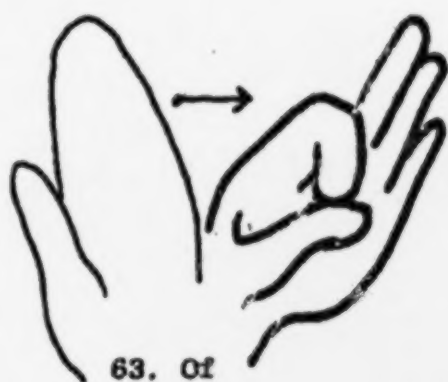
57. Goes: Go + S

58. Went: The right W hand is moved away from the body and then forms a T

59. Gone: Go + E

60. Going: Go + ing

SELECTED PREPOSITIONS



61. Make the right U hand and place the right hand on the top of the left hand as in "on."
62. With both hands form the letters A and L.
63. Hold the right hand up, palm facing the sender, and with a twist of the wrist turn it outward forming the F facing the receiver.
64. Off: Place the right palm on the top of the left hand. Then remove it forming the letter F.

SELECTED CONJUNCTIONS



65. Either



66. Or



67. Neither

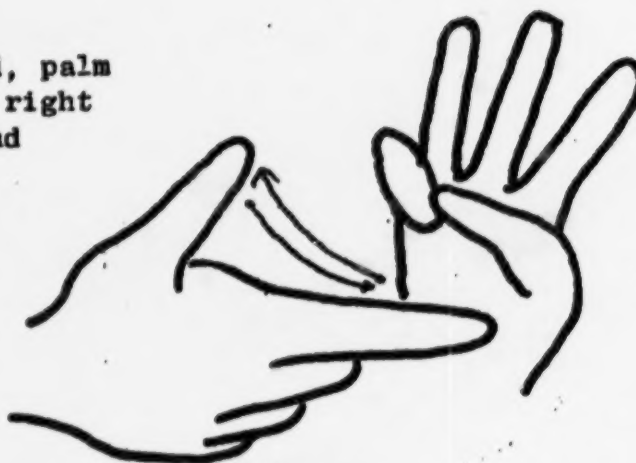


68. Nor

65. Either: Hold the left L hand, palm facing the body. Move the right E hand between the thumb and finger of the left hand.

66. Or: Same as "Either," but with the right index finger.

67. Nor: Hold the left L hand, palm facing the body. Move the right N hand back and forth.

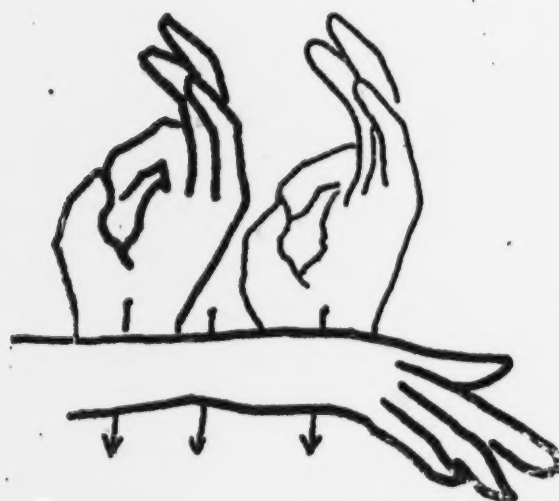
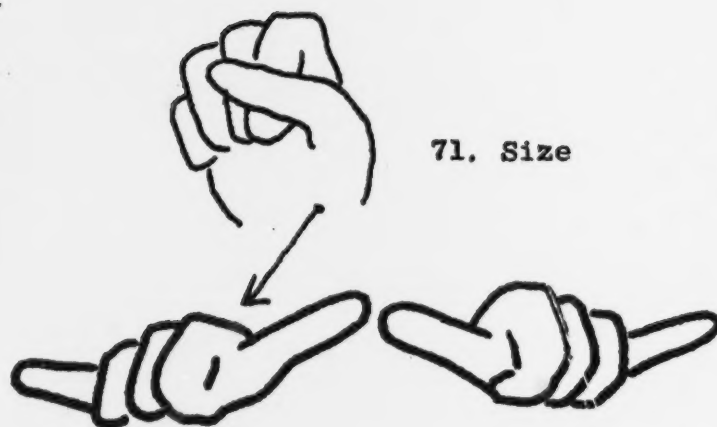
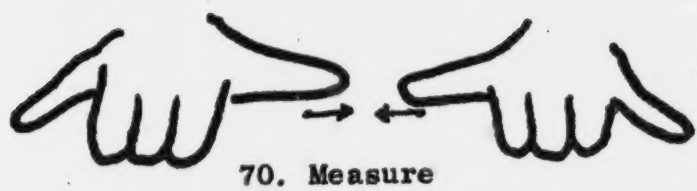


69. Whether

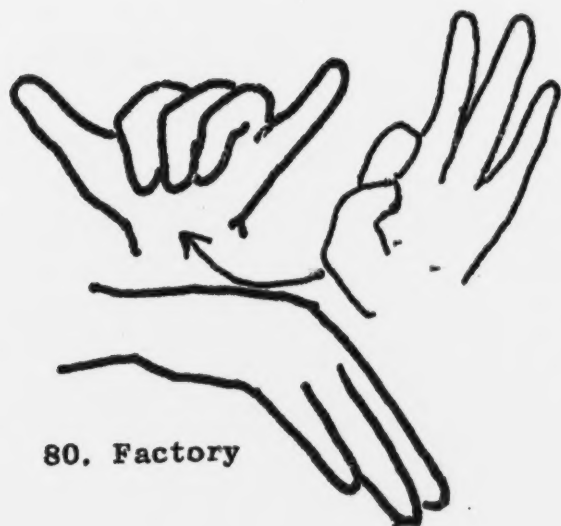
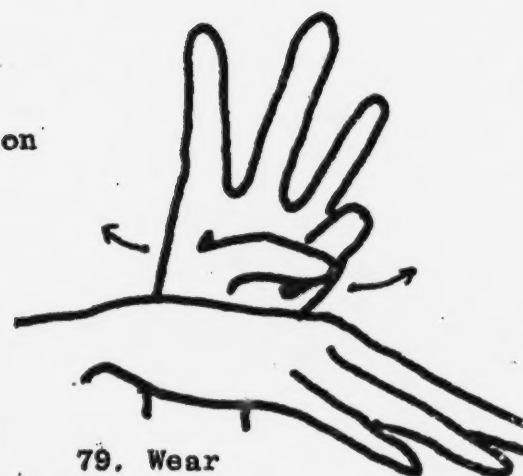
68. Nor: Strike the left index finger with the right N hand.

69. Whether: Same as "Either" but with the right W hand.

MEASUREMENT



"WORK" DERIVATIVES



77-83. These signs are initialized versions of "work."

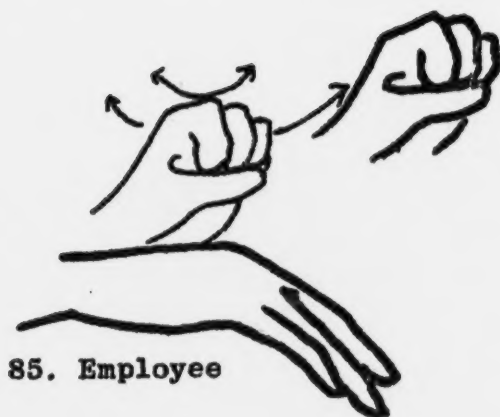
"WORK" DERIVATIVES CONT.



84. Employ



86. Tool



85. Employee

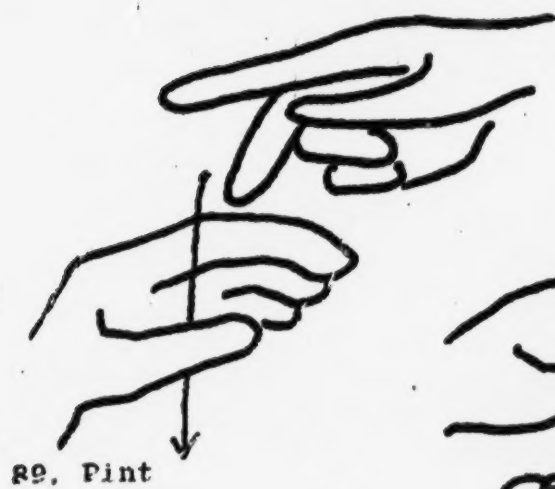


87. Order



88. Watch

MEASUREMENT AND TIME PIECES



89. Pint



90. Quart



91. Gallon



92. Watch

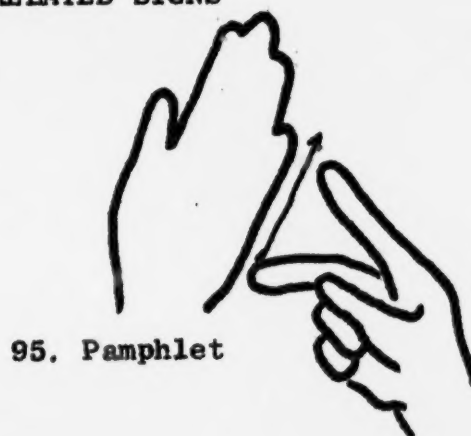


93. Clock

PR PRINTED MATTER AND RELATED SIGNS



94. Magazine



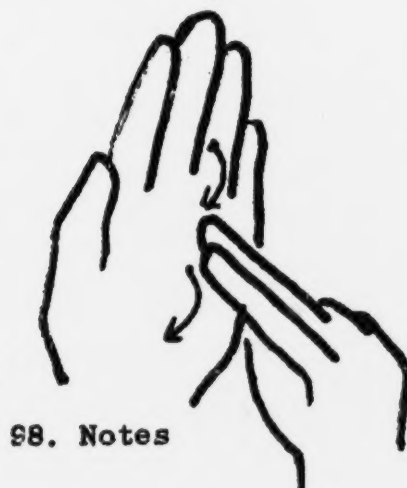
95. Pamphlet



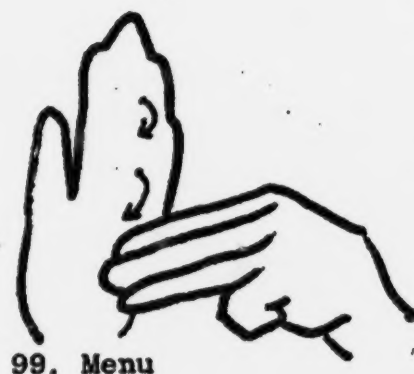
96. Layout



97. Page



98. Notes



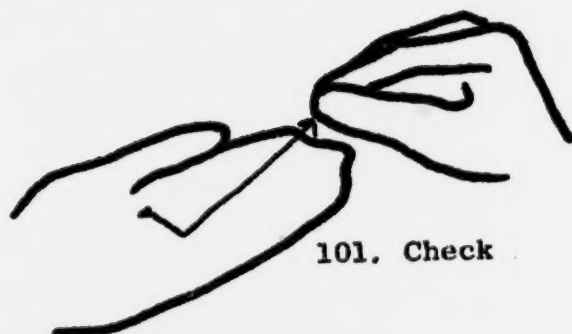
99. Menu



100. Account

94-100. In all these examples, the left hand is held with the palm toward the sender's face, and the right hand with the appropriate letter executes the sign.

PRINTED MATTER AND RELATED SIGNS CONT. MONTHS OF THE YEAR



101. Check



102. Date



103. Calendar



104. January



105. February

- 106. March: M drawn on palm and over back of hand.
- 107. April: A drawn on palm and L over back of hand.
- 108. May: M drawn on palm and Y over back of hand.
- 109. June: J drawn on palm and E over back of hand.
- 110. July: J drawn on palm and Y over back of hand.
- 111. August: A drawn on palm and T over back of hand.
- 112. September: S drawn on palm and over back of hand.
- 113. October: O drawn on palm and over back of hand.
- 114. November: N drawn on palm and over back of hand.
- 115. December: D drawn on palm and over back of hand.

MONEY MATTERS



116. Penalize



117. Wage



118. Tax



119. Fare

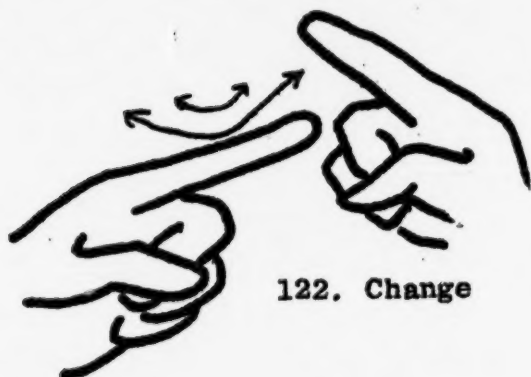


120. Cash (noun)



121. Cash (verb)

MONEY MATTERS CONT.



122. Change



123. Bill



124. Bank



125. Store (initialized
"sell")



126. Customer
(initialized
"buy" + person)



127. Scale

PERSONS



128. Male



129. Female



130. Parent
(Orphan: Use O hand)



131. Boss
(Foreman: Use F hand)



132. Partner

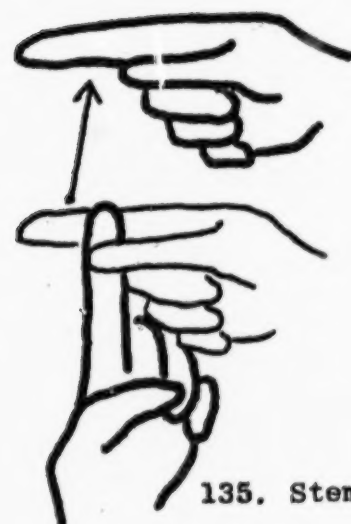
GROWING THINGS



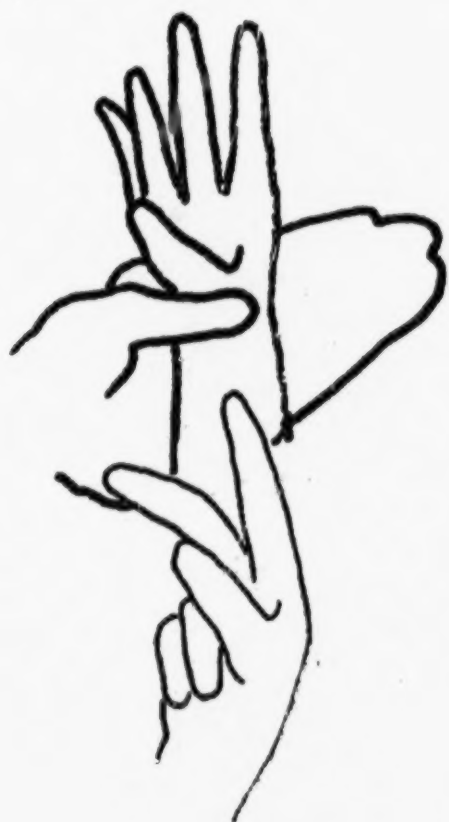
133. Branch



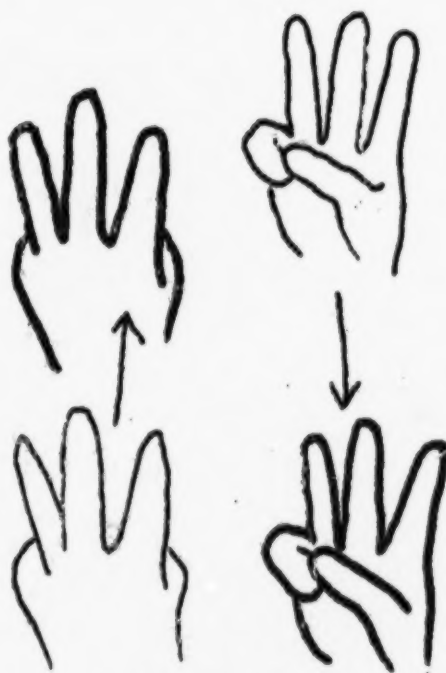
134. Leaf



135. Stem



136. Plant



138. Weed



137. Root

GROWING THINGS CONT.



139. Garden

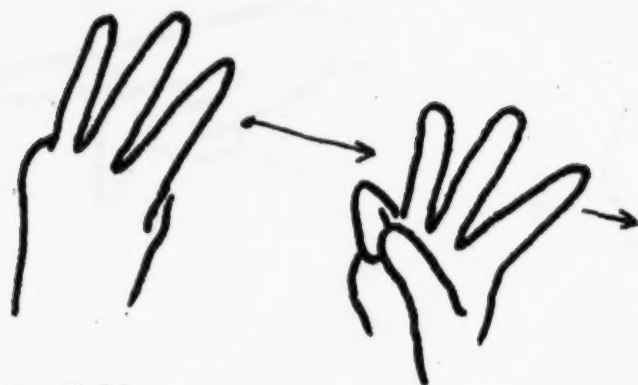


140. Field



141. Grass

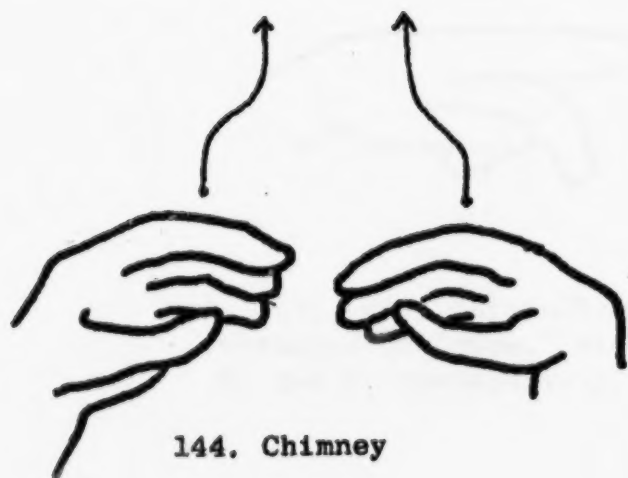
BUILDING PARTS



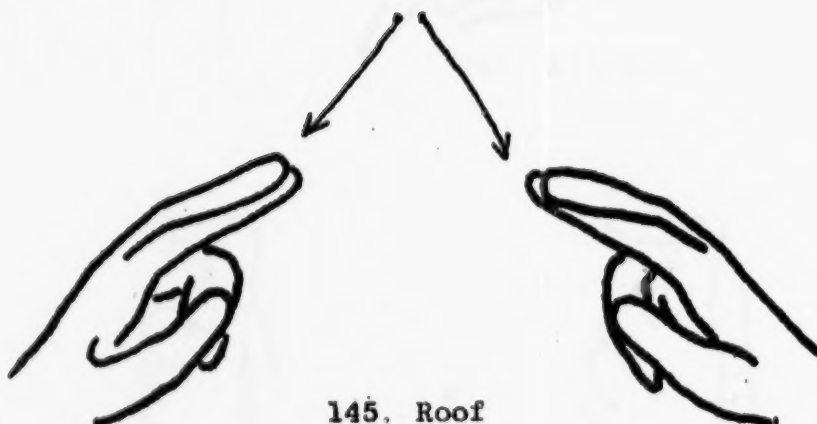
142. Wall



143. Doorway



144. Chimney

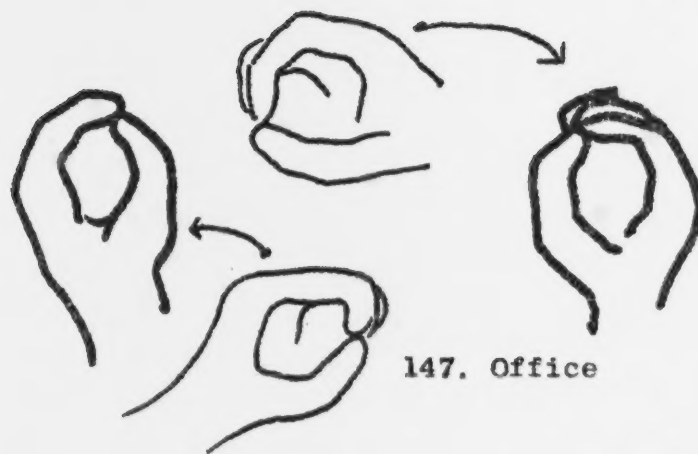


145. Roof

DERIVATIVES OF "ROOM"

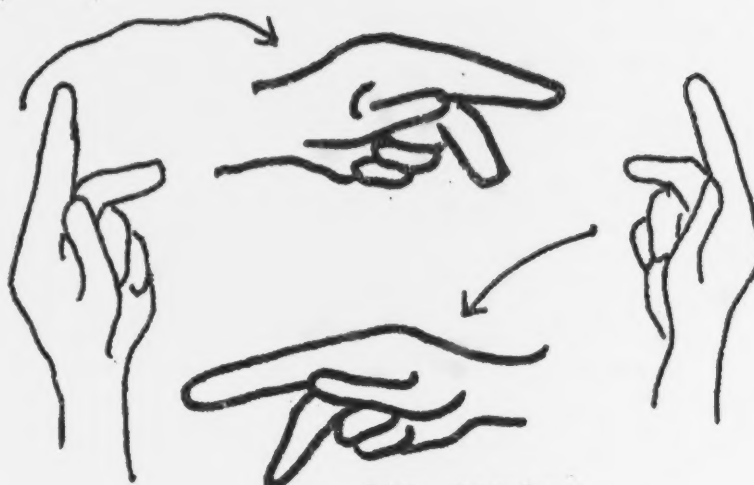


146. Apartment



147. Office

146, 147, 148. Initialized versions of "room," A+P, O, and K, respectively.



148. Kitchen



149. Mail



150. Stamp

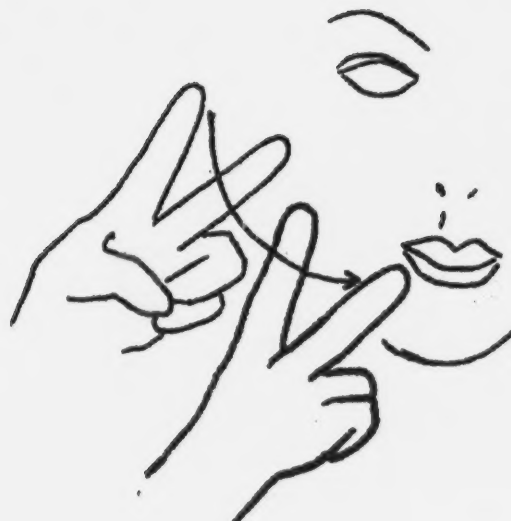


151. Letter

FOOD AND DRUGS



152. Fruit



153. Vegetable



154. Restaurant



155. Dessert



156. Drug

152. Fruit: F at the right cheek

153. Vegetable: V at the right cheek

154, 155. Restaurant and Dessert: R and D at the lip, respectively

156, 157. Drug and Poison: D and P in the left palm, respectively

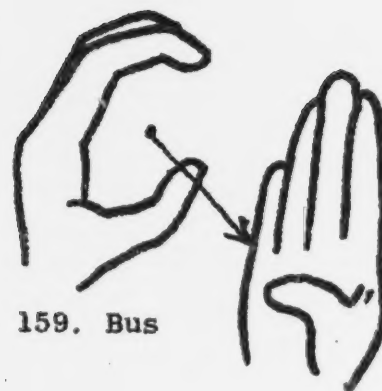


157. Poison

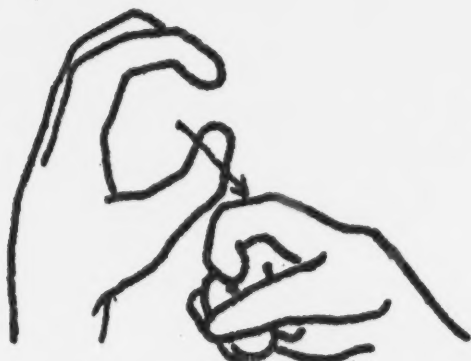
VEHICLES



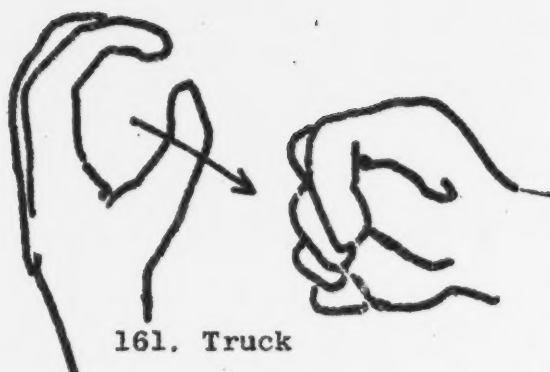
158. Auto



159. Bus



160. Taxi

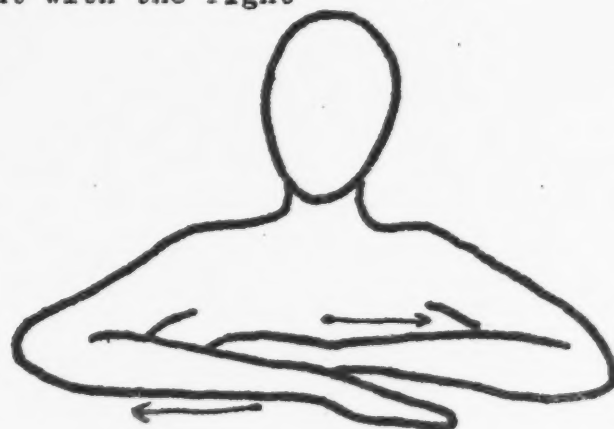


161. Truck

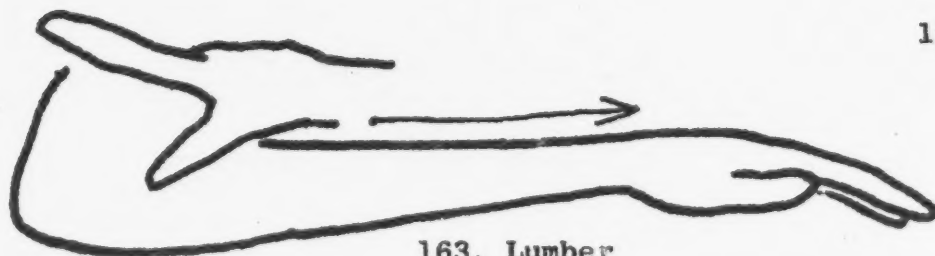
158. Auto: The right A hand is drawn out and away from the left C hand.

159. Bus: Same as "Auto" but with the right B hand.

160, 161. Taxi, Truck: Same as "Auto" but with the right right X and T hands, respectively.



162. Board



163. Lumber

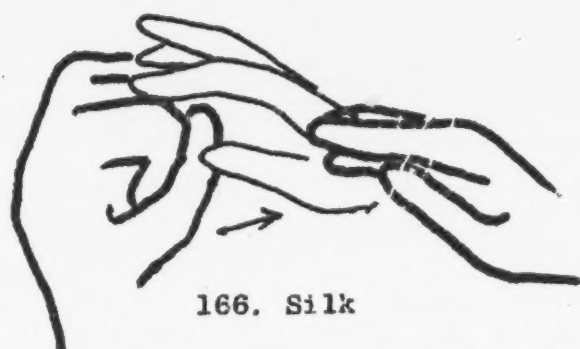
MATERIAL AND WEARING APPAREL



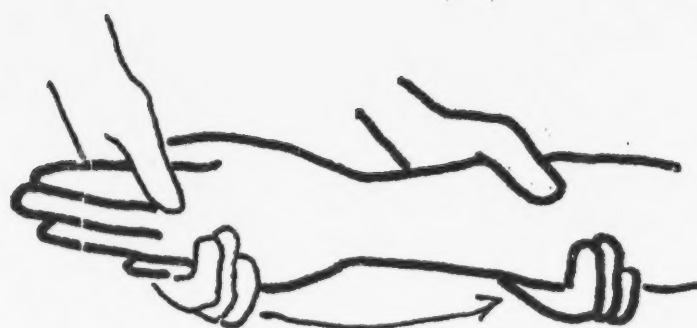
164. Wool



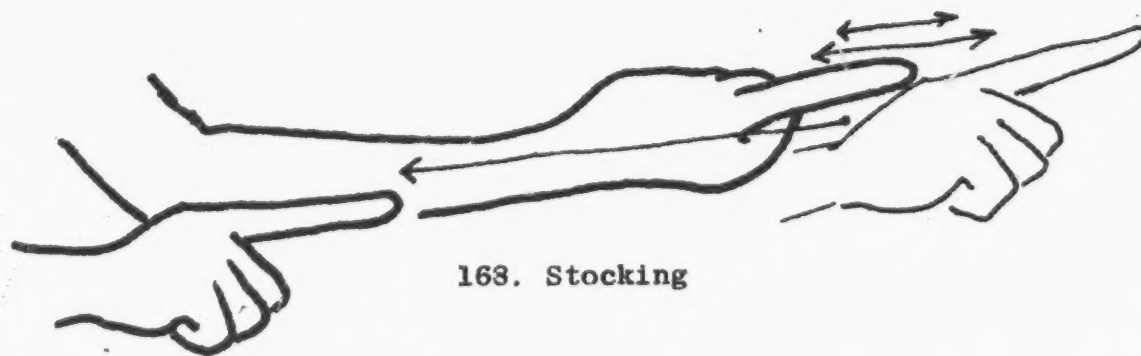
165. Cotton



166. Silk



167. Boot

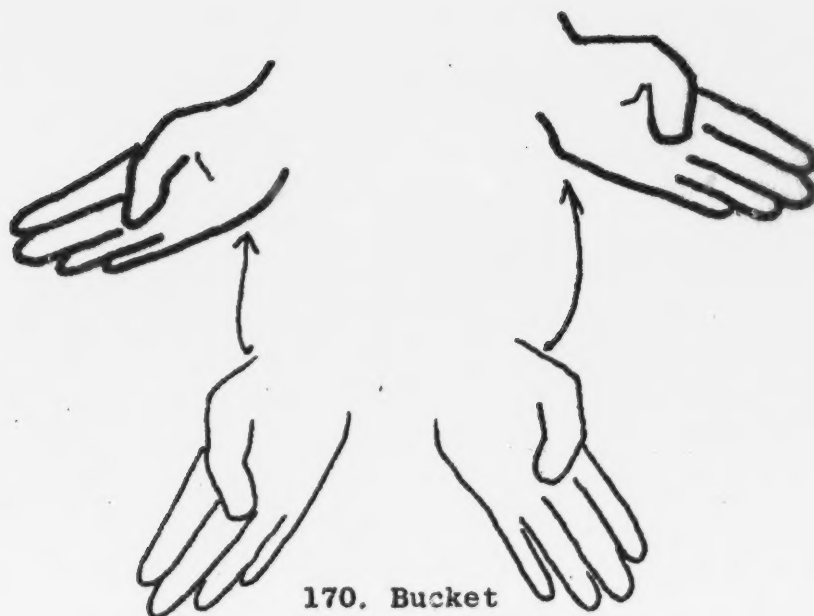


168. Stocking

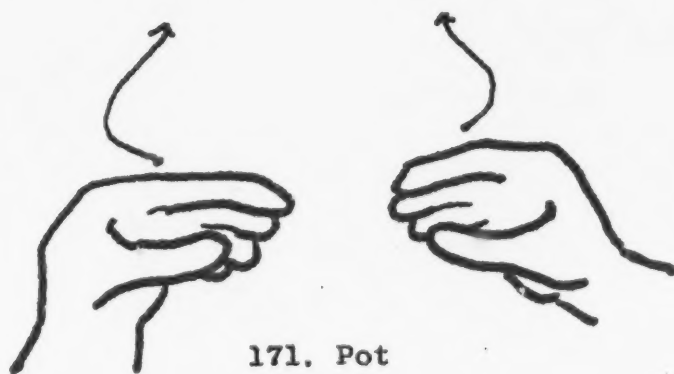
CONTAINERS



169. Bag



170. Bucket

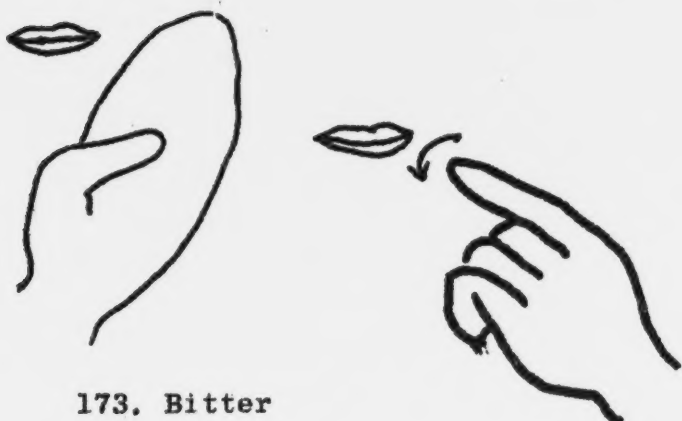


171. Pot



172. Bottle

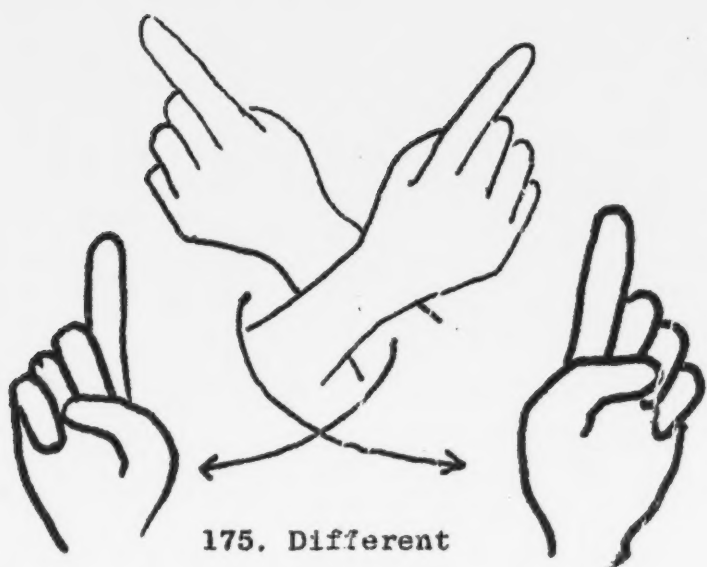
SELECTED ADJECTIVES AND ADVERBS



173. Bitter



174. Bright



175. Different



176. Early

173. Bitter: B + "bitter"

174. Bright: "Bright" with both B hands

175. Different: "Different" with both D hands

176. Early: Touch the back of the left palm with the three middle fingers and raise the right hand forming a Y.

177. Ever: Turn the E hand out with a twist of the wrist.



177. Ever

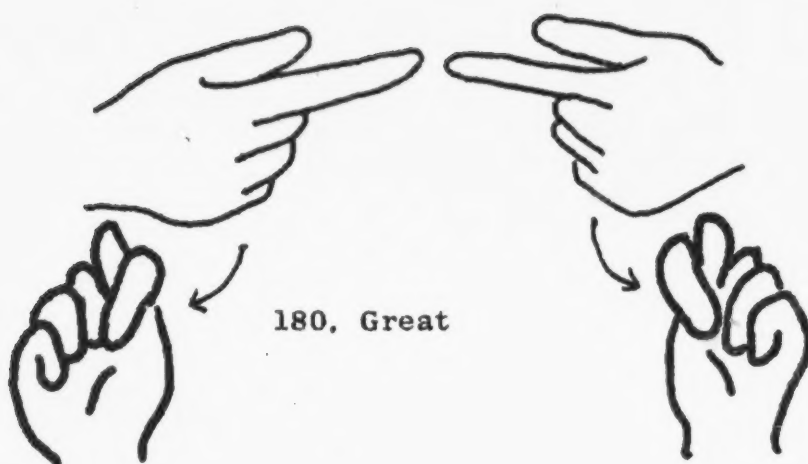
SELECTED ADJECTIVES AND ADVERBS, CONT.



178. Familiar



179. Fresh



180. Great



181. Just

178. Familiar: Hold the left hand out palm up, and make a circular motion with the right F hand.

179. Fresh: Initialized "new"

180. Great: "Large" beginning with G hands and ending in T hands

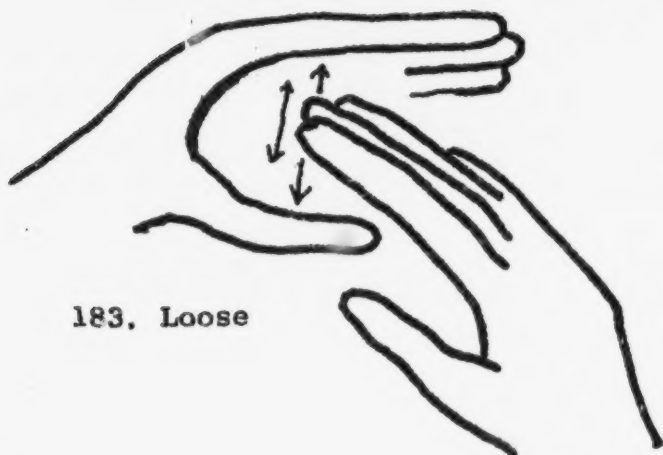
181. Just: J in the left palm.

182. Less: Bring the two L hands together in a brief gesture.



182. Less

ADJECTIVES AND ADVERBS CONT.



183. Loose



185. Only



184. Tight

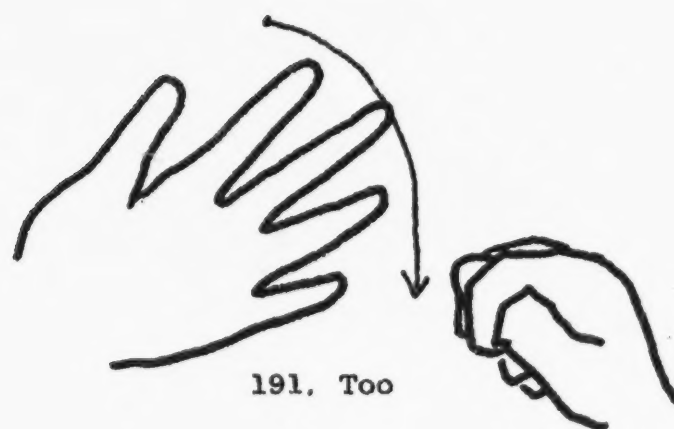
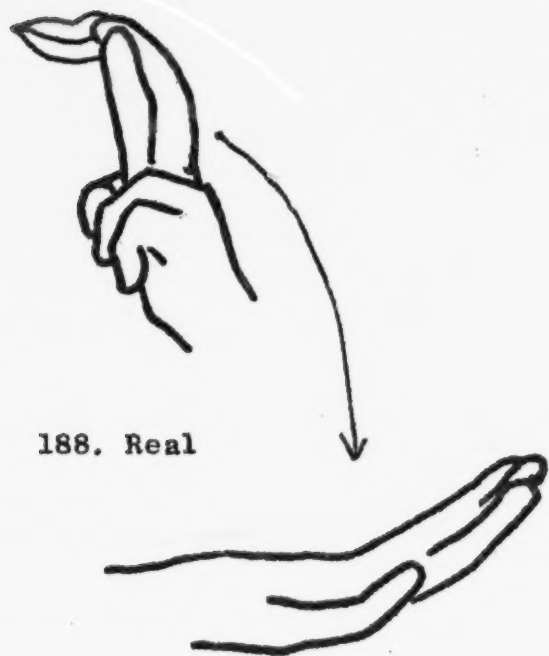


186. Quick

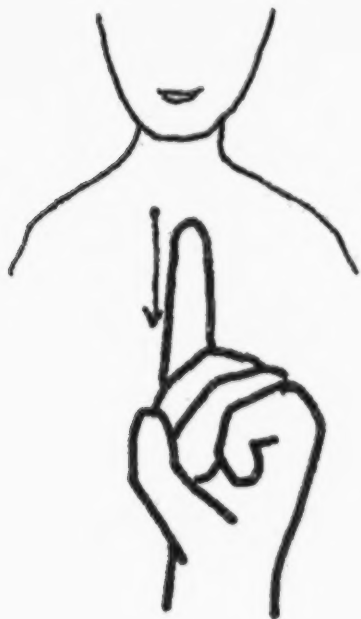


187. Quickly

ADJECTIVES AND ADVERBS CONT.



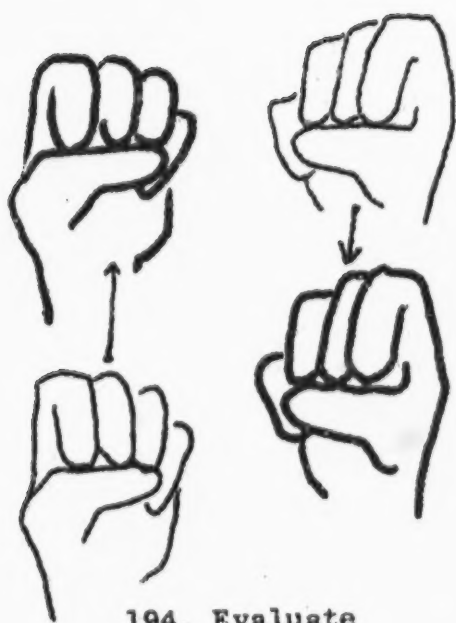
INITIALIZED VERBS



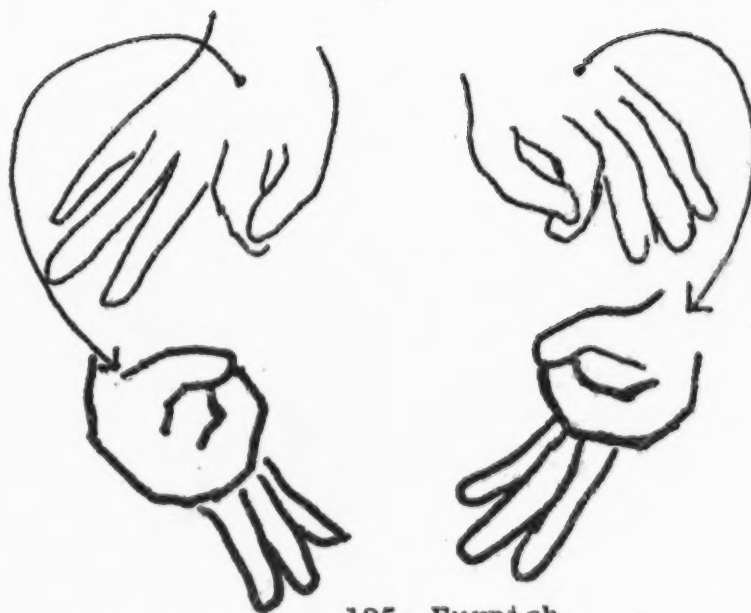
192. Desire



193. Enter



194. Evaluate

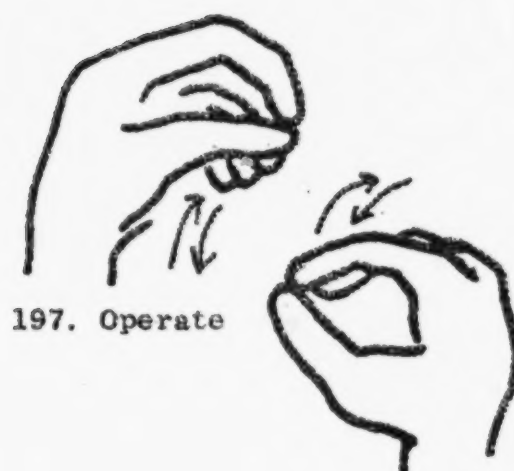


195. Furnish

INITIALIZED VERBS CONT.



196. Mix



197. Operate



198. Pay



199. Rent

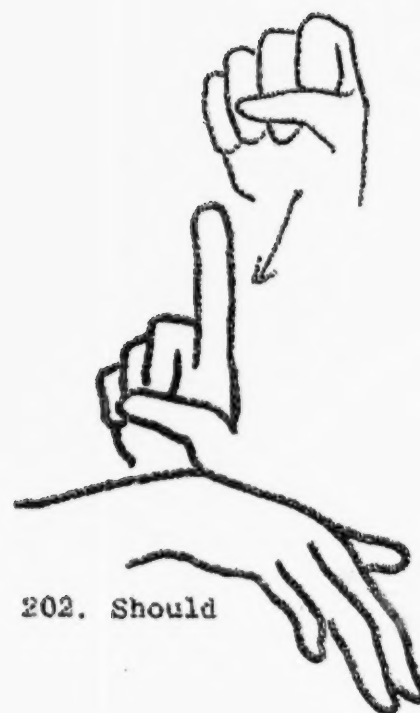


200. Prepare

INITIALIZED VERBS CONT.



201. Promote



202. Should

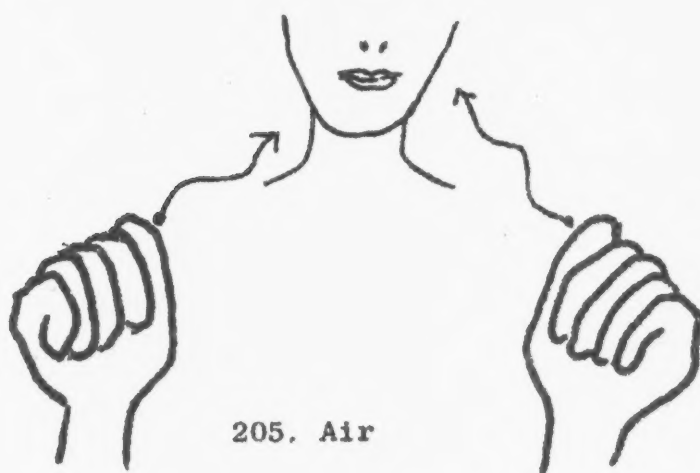


203. Travel



204. Twist

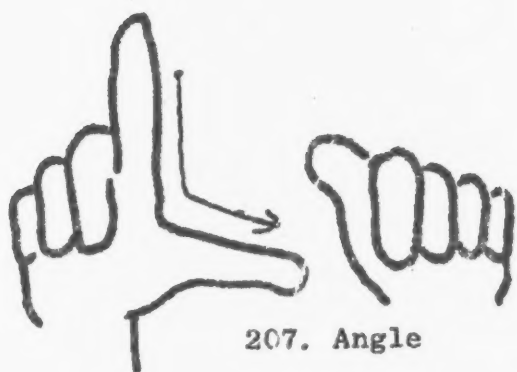
INITIALIZED NOUNS



205. Air



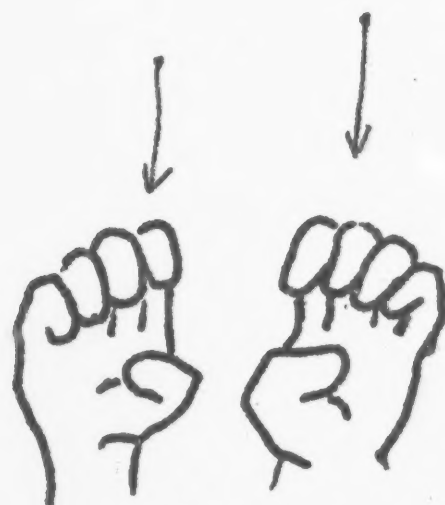
206. Amount



207. Angle

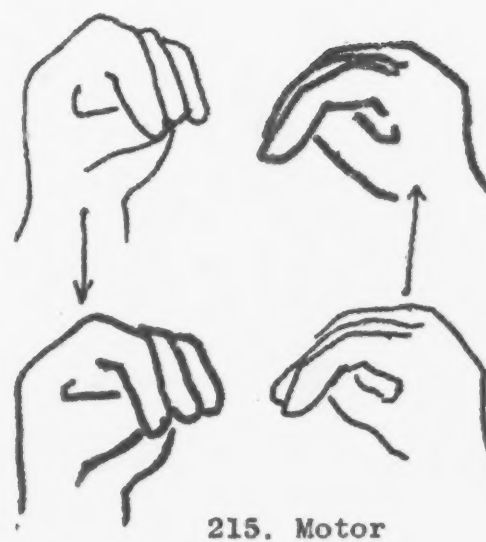
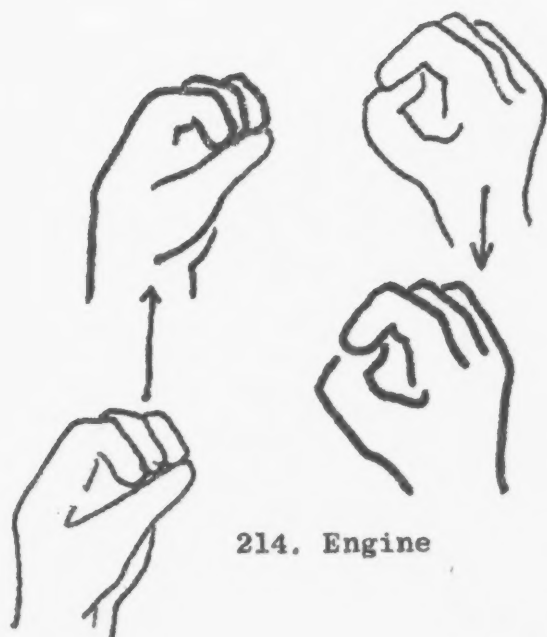
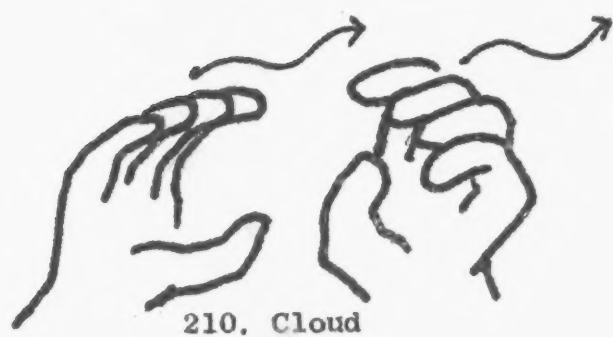


208. Blade

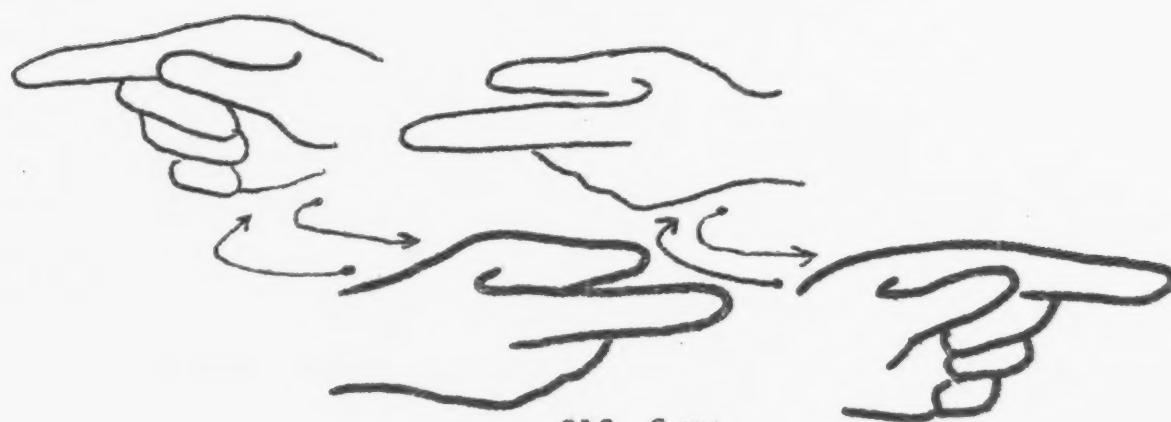


209. Client

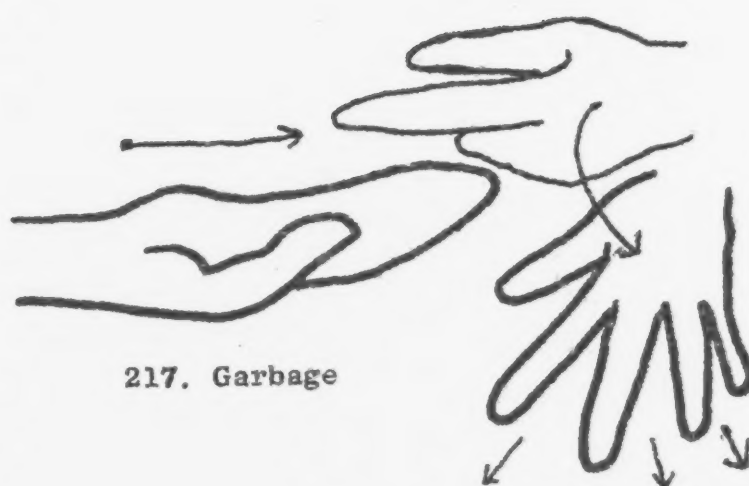
INITIALIZED NOUNS CONT.



INITIALIZED NOUNS, CONT.



216. Game



217. Garbage



218. Laundry

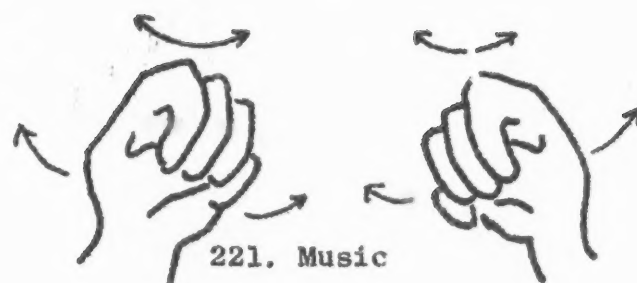


219. Liquid

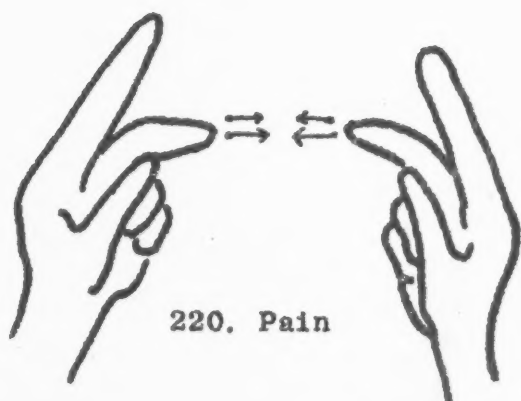
INITIALIZED NOUNS, CONT.



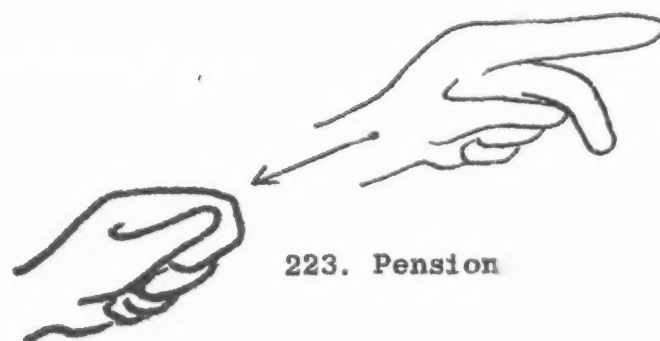
220. Motion



221. Music



220. Pain



223. Pension



224. Science



225. Season

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226. Seat



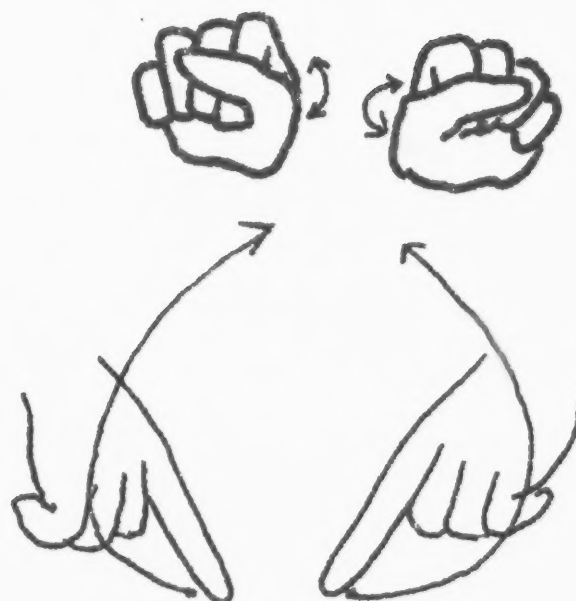
227. Second



228. Sense



229. Side



230. Sink



231. Smoke

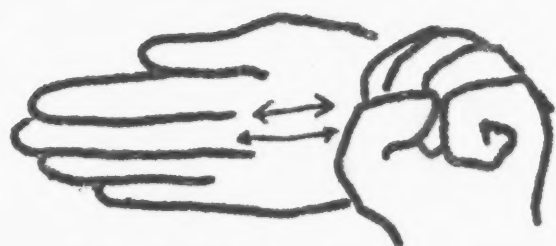
INITIALIZED NOUNS, CONT.



232. Spring



233. State



234. Station



235. Strike (labor)



236. Religion

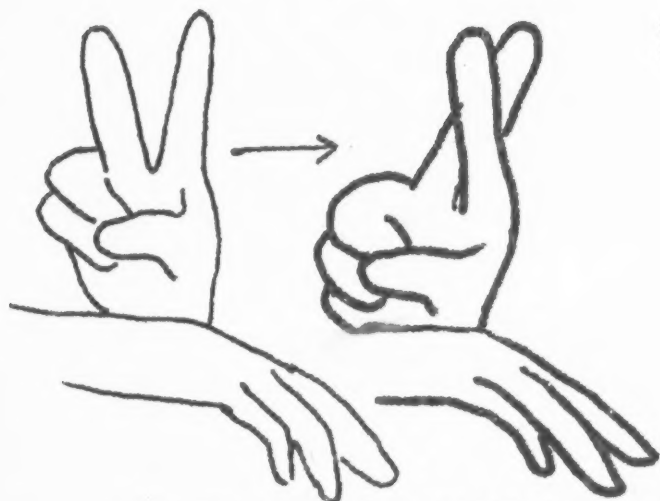
INITIALIZED NOUNS, CONT.



237. Road



238. Vacation



239. Vocational Rehabilitation



240. Wheel

EXAMPLES OF IDEOGRAPHIC VERBS



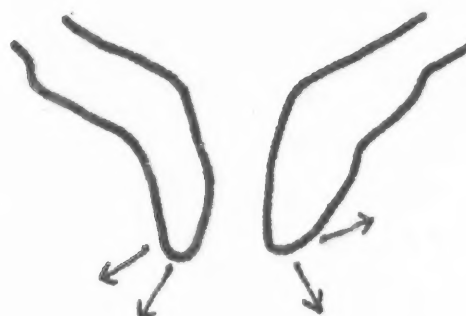
241. Bend



242. plane (verb)



243. Shake



244. Sort

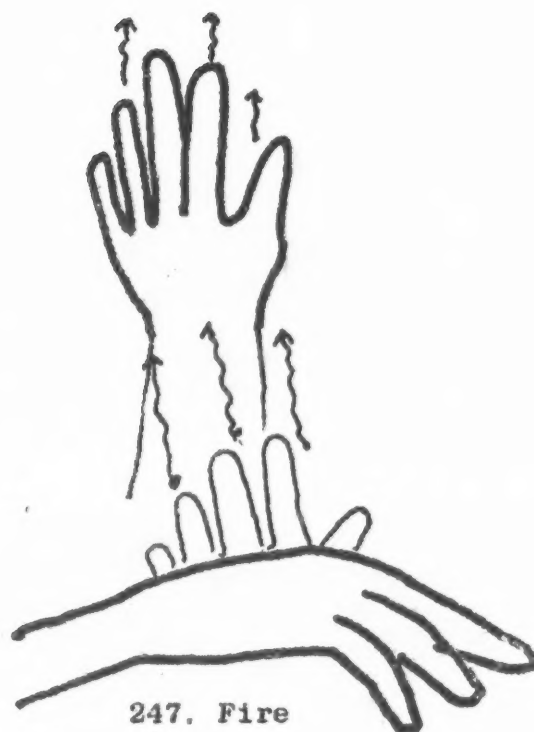
EXAMPLES OF IDEOGRAPHIC NOUNS



245. Buttonhole



246. Color



247. Fire



249. Pill



248. Flame



250. Washcloth

OTHER TERMS



251. Deliver



252. Ice



253. Nail



254. Pair

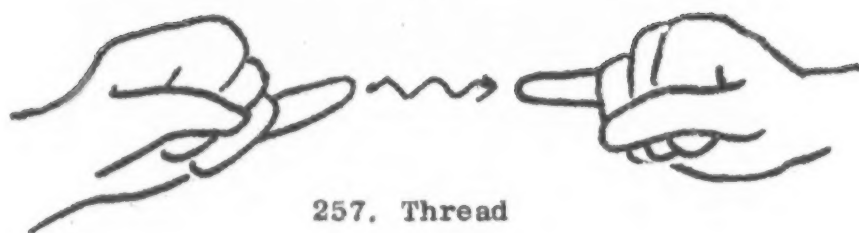


255. Price

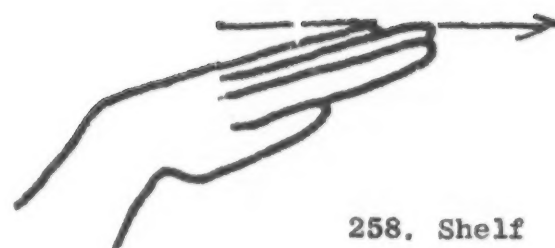


256. River

OTHER TERMS, CONT.



257. Thread



258. Shelf



259. Top



260. Tongue



261. Wire

INCREASING COMPATIBILITY BETWEEN SIGN LANGUAGE AND ENGLISH

Harry W. Hoemann, Mark Liberman, and James L. Orman

The Better Techniques of Communication for Severely Language Handicapped Deaf People Workshop was held for the purpose of documenting a language training tool for rehabilitation centers that serve severely language deficient deaf clients. The tool which was the focus of the week-long meetings is a manual communication technique designed to reduce the lexical and syntactical discrepancies between the conventional sign language of the deaf and the English language.

The goal of increasing the compatibility between manual communication and English would seem to have merit from either of two points of view. First, if negative transfer from dissimilar sign usage interferes with the acquisition or use of correct English, any reduction in the dissimilarity should result in a reduction in interference. Secondly, if additional exposure to correct English language patterns serves to promote the acquisition and use of correct English, then a manual communication system relatively compatible with English should prove helpful by providing additional practice in accepted usage.

Obviously, there are virtually insurmountable barriers to the creation of a completely visible English. Differences between the way in which English is spoken and the way it is written preclude the possibility of developing a system compatible with both. And irregularities in either spoken English or written English make a truly visible English practically unattainable. But the severe language deficiencies of the rehabilitation clients for whom special techniques of communication were designed make a venture of such scope unnecessary. Moreover, previous efforts in rehabilitation settings to modify signs in order to improve communication

with severely language-deficient clients have met with very encouraging results. Indeed, it was because of these results that a workshop was planned to explore better techniques of communication for severely language handicapped deaf persons.

The greater portion of time and effort at the workshop was devoted to inventing signs for words which are used frequently in rehabilitation centers but for which there are no signs available in the conventional sign system of the deaf. Such enrichment of the vocabulary of signs would alone constitute a worthwhile objective for a workshop. Personnel from twelve rehabilitation centers had submitted lists of words prior to the workshop to its chairman requesting either a sign language equivalent or a means of distinguishing them from related words. There is a clear need for an expansion of the sign language lexicon.

The major difficulty with the American Sign Language of the deaf, however, is not merely that the lexicon is relatively small compared with English but that signs tend to be ideographic. They are often abstracted from a visual aspect of their referent. Therefore, they are less arbitrary than words and not as applicable to a variety of contexts. For example, one can "tackle" an important task without wearing a football uniform, and one can "shove off" in a car as well as a boat. But when one makes the sign for "sink" by manipulating imaginary faucets, this would hardly serve as a sign for the verb. But if a sign is to convey meaning to a deaf person as efficiently as possible, it must be related to its referent as explicitly as possible. Unfortunately, an explicit relation to a referent, especially a visual aspect of a referent, detracts from the likelihood that the sign could serve as a substitute for the English word which happens to be related to that same referent. The English word may be used in other contexts in which the sign would appear incongruous. It often happens that

the more effectively a sign conveys meaning, the less successfully it can stand for an English word in all of its contexts. For example, there is a sign for "to run" in conventional sign language, but a "run" in a stocking is more effectively rendered in signs by means of pantomime, with the forearm representing a stocking. A "run" on a bank is more difficult to render in signs. There is no conventional sign that stands for the English word "run" in all of its possible contexts, and it would be difficult if not impossible to invent one. A sign arbitrary enough to avoid incompatibility with some contextual cues would be unnatural and probably unacceptable. If signs stood for words, as sign language dictionaries sometimes unwittingly imply, the development of a sign language lexicon compatible with English would present no problems. But signs are not signs for words, even though linguistically competent deaf persons may use them to translate English words, and even though hearing persons may learn signs by way of the English word that most frequently translates the gesture symbol. Signs as the majority of deaf users make them are symbols for referents, just as words are, and they do not substitute for English words in a simple and direct manner.

One way to make a sign relate to the English word that may translate it is to include a symbol for the word as part of the sign which is at the same time a gesture symbol for a referent. This technique is sometimes called "initialization," and the resulting signs are sometimes called "lead letter signs." Thus, the basic sign for "way" can be initialized by a letter of the alphabet to indicate way, road, path, lane, highway, etc. This technique was employed both for novel signs and for modifications of existing signs by participants of the workshop.

A second technique by which English words can be presented in a manual mode is by adopting a sign for the root of the word and then

attaching additional arbitrary gesture symbols for prefixes and suffixes. Participants at the workshop also employed this technique. Although irregularities in the English language present some obstacles to a consistent application of this approach, this technique has been demonstrably effective within a defined area of application, e.g., when used with Basic English words. Difficulties appear when roots are identifiable but never used. For example, work + er = worker, and teach + er = teacher, but soldier is not derived from a verb + er, and one should perhaps not permit learn + er to translate student or pupil. Prefixes and suffixes, too, can create problems. In some instances unlike prefixes have identical meanings: illegal, inaccessible, immobile; in other instances identical prefixes have unlike meanings: rework, return, receive, recall. In some instances a root which changes form retains its meaning: see, saw, seen; in other instances the same root may take on a variety of meanings: apply, 4-ply, reply, imply. Finally, there is no immediate means at hand for distinguishing the noun from the verb in words like project, record, construct, reject, recess, etc., where spoken English is completely unambiguous.

Clearly, problems created by English irregularities suggest caution in adopting a root + suffix or prefix + root as a method of translating English into signs. At the same time, it is an obvious advantage to be able to distinguish in signs between go and going and between punish and punishment. The technique has clinical evidence for its effectiveness and is presented in this manual as a useful tool when used appropriately.

The general aim of the workshop, to modify the sign communication of the deaf so as to make it more compatible with English, made use primarily of the two techniques described above, initialization and the signing of roots plus prefixes and suffixes. Its major contribution was an enrichment of the sign language lexicon, particularly in areas important for

rehabilitation counseling and language training. Previous application of these techniques in rehabilitation settings have resulted in better communication for severely language-deficient deaf clients, and the results could be observed in improved reading and writing skills as well as more effective interaction with deaf and hearing persons. The results of the workshop are presented in this manual as a tool which rehabilitation personnel may find useful in serving the special needs of their language-deficient deaf clients, a tool designed to provide better techniques of communication for severely language handicapped deaf people.

TECHNIQUES FOR USING IMPROVED MANUAL COMMUNICATION
AS A LANGUAGE TRAINING TOOL

Richard Johnson, Dorothy Miles, and Max Mossel

Severely handicapped deaf rehabilitation clients are often unable to read even simple written English with understanding or to write even simple sentences in correct English to express their ideas. Such an impoverished language ability affects both their vocational training and their personal, vocational and social adjustment. Their inability to read and understand English retards their acquisition of information necessary for learning a trade or obtaining a job. Inability to communicate by means of writing notes to hearing people jeopardizes their job tenure and impedes their upward mobility. The ability to fill out job application forms and other questionnaires correctly depends on an individual's ability to understand the questions and to make a verbal response. Often the intelligence of a deaf person may be grossly underestimated on the basis of an example of his writing in English. Finally, it is hardly likely that an employee will be able to follow directions that he cannot read or carry out orders that he cannot understand. For these reasons it is very important for severely language-deprived deaf clients that methods be found by which their basic skills in the use of the English language might be improved.

Among attempts to alleviate this problem have been efforts to use the language of signs and/or fingerspelling to teach the English language. However, fingerspelling is merely another way of producing a visual symbol for each letter of the alphabet. The low-verbal deaf person is what he is precisely because he is incapable of encoding and decoding the many combinations of letters that make up words. —Therefore, the usual combination of sign language plus fingerspelling to fill in the gaps created by a lack

of appropriate signs is unsuitable.

In rehabilitation settings it was noted from feedback from language-deficient clients that they were able to understand only gross gestures for which they and the signer had a common meaning. To be more specific, signs alone had been reaching these people. This growing realization left those concerned with the rehabilitation of the multiply handicapped deaf two choices. Either they could be content with a "me Tarzan, you Jane" type of sign communication and, thus, ignore the many words necessary for successful training and counseling. Or they could look for ways of bridging the enormous gap which existing signs left in the process of establishing and developing the degree of communication skill necessary for successful rehabilitation.

From the vocational point of view the most glaring omissions were the lack of specific signs for such work-oriented words as job, deliver, application (as distinct from apply), boss, fix, operate, bus, factory, tool, etc. In the training situation the instructor must limit himself to the use of a single base sign for the interpretation of several English word equivalents in daily usage. Although the deaf person may have the appropriate concept, being able to distinguish, for example, between a bus and a truck in that one is something you ride in and the other is something you haul something in, he is not likely to have a conventional symbol with which to make reference to either concept in communication with another person. Nor is there much positive value in teaching him the English word without adding a specific gesture symbol to accompany that word in his sign language vocabulary. Teaching English words to low-verbal deaf clients without gesture equivalents is, in effect, teaching them English as if it were a foreign language with no opportunity to tie it to their normal day to day conversation in gestures. In order to expand deaf clients' English

vocabulary, we must expand his sign language vocabulary as well.

We now come to the question of applying this vocabulary expansion to the development of an understanding of written English. The confused language pattern of the low-verbal deaf person is not at all improved by the fact that fingerspelling has to be used for many key words that are critical to English syntactical structure. There is no conventional sign language equivalent for auxiliary verbs or for endings that are required for participial constructions. Unless signs are modified so as to include symbols for English syntactical constructions, sign language will provide no means by which the client's attention will be called to these important elements of the English language.

There is good reason to believe that both the low-verbal and the more competent deaf person will benefit from the presentation of a more visible English. Consider the sentence, "The streets are full of people walking." With regular signs a deaf person will see symbols for "Way full of people walk." With additional cues the sentence can be made more clear. The sign for "way" can be initialized to suggest "street." Suffixes can be added to "street(s)" and to "walk(ing)." The verb "are" can be signed with an "R" instead of the index finger to suggest the verb "are" instead of "is" or the more general "truly." With these refinements the deaf person with a knowledge of English grammar can see, "The S-way+s are full of people walk+ing." The low-verbal deaf person, while not achieving such grammatical perfection, might at least be aided in differentiating "way" and "street," and the other refinements can certainly suggest something of the richness and variety of the English language.

Another example of the need for something else than fingerspelling to supplement existing signs in rehabilitation settings can be drawn from efforts to teach signs to staff members: attendants, nurses, social workers,

psychologists, etc. When class members ask for the sign for words not included in the dictionary of signs, they are generally told, "Spell it out." But when such staff members try out their newly acquired skills with deaf residents, they are often frustrated and disillusioned. A conscientious sign language instructor can only be embarrassed by such an outcome. It makes little sense to spell to deaf residents when it is no secret that they are unable to read what is spelled. Alert students of the signs of the deaf often note, too, other obvious weaknesses in the system. The lack of forms to represent the inflection of the verb "to be" provides a great obstacle to communication, and it is frequently met.

The hearing person who enters rehabilitation and becomes interested in working with deaf clients may approach the study of signs with enthusiasm. But it is extremely difficult for him to erase the language pattern that he has developed from childhood and begin anew with what amounts to an entirely foreign syntax. Unless he is unusually skillful at pantomime or has flexible features, or some other helpful characteristic, he rarely learns to express himself fluently in signs. Even more laborious is his task of unscrambling the client's attempts at communicating. For example, if the counselor has learned signs for "see" and "late," it is not an easy step to infer that a client is saying, "I have not seen (him, her, it, or whatever) yet."

From experiences such as those described above the foundation was laid for innovations in the signs used in rehabilitation settings which were designed to upgrade the almost nonexistent language of the deaf retardate to a form more closely approximating English. Many new signs were invented where none existed before. Multiple meanings had to be extracted from basic signs. In some instances it was possible to employ a base sign for a general meaning with initialization to refer to specific words. When

this resulted in a configuration that could be confused with another existing and acceptable sign, or, in some cases when the currently used gesture was out of date, the movement of the hands was altered for all applications. For example, the base sign for "way" is formed by both hands in a B configuration moving outward from the body. When initialized to signify "street," with S hands, the sign resembles the sign for "try" very closely, which involves the same motion but with T hands. Consequently, the basic movement for the base sign was changed for "way" to pass from left to right across the body, and all initialized applications, road, path, lane, etc., followed the same pattern.

Inflections of the infinitive, "to be," those tiny but tremendously important words, were among the first to receive individual signs. Taking the existing sign, "truly," as a starting point, the A hand was used for "am," the R hand for "are," the I hand for "is," and the B hand was used for "be." "Was" and "were" made use of the W and the R hands but added a movement of the hand backward across the shoulder to indicate the past. Such a movement could be used to show the past for all verbs with an -ed ending.

Single hand movements were invented for word endings, such as -ing, -ment, -ness, and for prefixes such as re-, pre-, etc. These were added to appropriate roots which served for one English word and no other.

While this work was in the developmental stage it was already being put to use in several rehabilitation centers. Striking results were observed in some individual cases, and in most of those where the client was exposed to this method, improvements were noticeable enough to justify continuation. Most impressive was the overall improved attitude of the client when he was able to succeed in something that had previously been a "closed book."

Properly developed the implications for this improved method of communicating appear to be extensive. Meanwhile, the pressing need for rehabilitation clients and of their instructors for a language training tool has resulted in the offerings of this workshop.

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